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(54) Title: ENVIRONMENTALLY COMPATIBLE ADDITIVES FOR AQUEOUS LUBRICANTS

(57) Abstract: Lubricating compositions, containing non-modified and modified multifunctional, polyionic copolymers and an aqueous lubricating medium, and methods for making and using such compositions are described herein. The lubricating compositions are applied to metal oxide surfaces, which are in contact with each other. The copolymers can serve as a surface protective boundary layer for the sliding surfaces, or they can also be used for the immobilization of further molecules, which can modify the tribological properties of the surfaces.